BRUHAT BANGALORE MAHANAGARA PALIKE

WARD NO.07, BYATARAYANAPURA

Name of work:- Improvements to roads of 1st to 11th cross Right side of Jakkur Layout in ward no.07, Byatarayanapura.

P-code:-

Est cost:49.50 lakhs

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Improvements to Roads of 1st to 11th Cross right side of Jakkur Layout in Ward No 07, Byatarayanapura

							Construction Cost:		4950000.00
Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.133, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	CC Drain	Cum							
	2nd Cross LHS		2	120.00	0.95	0.80	182.40		
							182.40	186.92	34094.21
	Basic rate	**82**							
	Loading and unloading with 10km lead= 68+2.5x1.28x10 = 100	**100**							
	Area Weightage 6%	**4.92**							
	Final Rate	**186.92**							
2	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)								
	Bed Concrete	Cum							
	2nd Cross LHS		2	120.00	0.95	0.15	34.20		
							34.20	5348.76	182927.59
	Basic rate	**5046**							
	Area Weightage 6%	**302.76**							
	Final Rate	**5348.76**							
3	KSRB 4-6.5 : Providing and removing centering, shuttering, strutting, propping etc., for columns, pillars, post and struts, square / rectangular/ polygon in plan including cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2 (P.No.16, I.No.4.32 of PW, P&IWTD SR 2016-17)								
	CC Drain	Sqm							
	2nd Cross LHS		8	120.00		0.60	576.00		
							576.00	387.96	223464.96
	Basic rate	**366**							
	Area Weightage 6%	**21.96**							
	Final Rate	**387.96**							
4	KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of Design mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregtes @ 0.460 cum, with super plasticisers @ 3 liters confirming to is 9103-1999 reafirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls, return walls, walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc., including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. Specification No. KBS 4.1, 4.6(P.No.13, I.No.4.11 of PW, P&IWTD SR 2016-17)								
	Bottom Raft	Cum							
	2nd Cross LHS		2	120.00	0.75	0.15	27.00		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Walls								
	2nd Cross LHS		4	120.00	0.15	0.60	43.20		
	Basic rate	**6011**					**70.20**	6371.66	447290.53
	Area Weightage 6%	**360.66**							
	Final Rate	**6371.66**							
5	KSRB - 4.9.2: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. (P.No.17, I.No.4.46.3 of PW, P&IWTD SR 2016-17)								
	Consider 55Kgs/cum for Drain	Tonne		70.20	0.055	--	3.87		
	Basic rate	**60607**					**3.87**	64243.42	248622.04
	Area Weightage 6%	**3636.42**							
	Final Rate	**64243.42**							
6	Providing and fixing **RCC Precast cover slab of 100mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Cover Slab	Sqm							
	2nd Cross LHS		2	120.00	0.75	--	180.00		
	Data Rate						**180.00**	2100.00	378000.00
7	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.142, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Bad Reaches	Cum							
			30	2.00	2.50	0.20	30.00		
			29	3.00	6.00	0.20	104.40		
			30	5.00	1.50	0.20	45.00		
			30	3.00	2.00	0.20	36.00		
	Basic rate	**46**					**215.40**	148.76	32042.90
	Loading and unloading with 10km lead= 68+2.5x1.28x10 = 100	**100**							
	Area Weightage 6%	**2.76**							
	Final Rate	**148.76**							
8	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub-base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.157, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Bad Reaches	Cum							
			30	2.00	2.50	0.20	30.00		
			29	3.00	6.00	0.20	104.40		
			30	5.00	1.50	0.20	45.00		
			30	3.00	2.00	0.20	36.00		
	Basic rate	**1668**					**215.40**	1768.08	380844.43
	Area Weightage 6%	**100.08**							
	Final Rate	**1768.08**							

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
9	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kg\sqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.160, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Bad Reaches	Sqm							
			30	2.00	2.50	--	150.00		
			29	3.00	6.00	--	522.00		
			30	5.00	1.50	--	225.00		
			30	3.00	2.00	--	180.00		
							1077.00	27.56	29682.12
	Basic rate	**26**							
	Area Weightage 6%	**1.56**							
	Final Rate	**27.56**							
10	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.160, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Road Formation	Sqm							
	RHS								
	1st Cross		1	150.00	6.50	--	975.00		
	2nd Cross		1	165.00	5.50	--	907.50		
	3rd Cross		1	160.00	5.00	--	800.00		
	4th Cross		1	160.00	5.50	--	880.00		
	5th Cross		1	160.00	4.00	--	640.00		
	6th Cross		1	65.00	6.00	--	390.00		
	7th Cross		1	130.00	6.00	--	780.00		
	8th Cross		1	115.00	5.20	--	598.00		
	9th Cross		1	110.00	5.50	--	605.00		
	10th Cross		1	100.00	5.50	--	550.00		
	11th Cross		1	90.00	7.50	--	675.00		
	Road 1(1st Cross-4th Cross)		0	80.00	7.50	--	0.00		
							7800.50	3.18	24805.59
	Basic rate	**3**							
	Area Weightage 6%	**0.18**							
	Final Rate	**3.18**							
11	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.160 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
	For Laving BC	Sqm							
	1st Cross		1	150.00	6.50	--	975.00		
	2nd Cross		1	165.00	5.50	--	907.50		
	3rd Cross		1	160.00	5.00	--	800.00		
	4th Cross		1	160.00	5.50	--	880.00		
	5th Cross		1	160.00	4.00	--	640.00		
	6th Cross		1	65.00	6.00	--	390.00		
	7th Cross		1	130.00	6.00	--	780.00		
	8th Cross		1	115.00	5.20	--	598.00		
	9th Cross		1	110.00	5.50	--	605.00		
	10th Cross		1	100.00	5.50	--	550.00		
	11th Cross		1	90.00	7.50	--	675.00		
	Road 1(1st Cross-4th Cross)		0	80.00	7.50	--	0.00		
							7800.50	11.66	90953.83
	Basic rate	**11**							
	Area Weightage 6%	**0.66**							
	Final Rate	**11.66**							

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
12	KSRRB M500-19. Providing and laying bituminous concrete 40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 6% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.164 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	Road Formation	Cum							
	1st Cross		1	150.00	6.50	0.04	39.00		
	2nd Cross		1	165.00	5.50	0.04	36.30		
	3rd Cross		1	160.00	5.00	0.04	32.00		
	4th Cross		1	160.00	5.50	0.04	35.20		
	5th Cross		1	160.00	4.00	0.04	25.60		
	6th Cross		1	65.00	6.00	0.04	15.60		
	7th Cross		1	130.00	6.00	0.04	31.20		
	8th Cross		1	115.00	5.20	0.04	23.92		
	9th Cross		1	110.00	5.50	0.04	24.20		
	10th Cross		1	100.00	5.50	0.04	22.00		
	11th Cross		1	90.00	7.50	0.04	27.00		
	Road 1(1st Cross-4th Cross)		0	80.00	7.50	0.04	0.00		
							312.02	7083.98	2210343.44
	Basic rate	**6746**							
	Area Weightage 6%	**404.76**							
	Final Rate	**7150.76**							
13	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.197, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line								
			2	1485.00	0.10	--	297.00		
			248		0.10		24.75		
							321.75	542.72	174620.16
	Basic rate	**512**							
	Area Weightage 6%	**30.72**							
	Final Rate	**542.72**							
								Total Construction Cost	4457691.80
14								**KRIDL Charges @ 10%**	445769.18
15								**Labour Cess @ 1%**	44576.92
16								**Sub Total**	4948037.90
17								**Miscellaneous and rounding off**	1962.10
								Total	4950000.00

Certificate.

1 The workspot was inspected and work is found to be necessary.
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
4 The provisions made in the estimate are necessary and essential.

Assistant Engineer

Assistant Executive Engineer

Executive Engineer 23/12

ADMINISTRATIVE APPROVAL

Accorded For Rs. Forty Nine lakhs fifty thousand only

Head of A/c P-3333

Div. Ref. No. 149/17-18 Date 23/12/17

AE 23/12

EE(BTP) 23/12

Tech sanction 49.50 lakh Rs

Accorded for P-3333

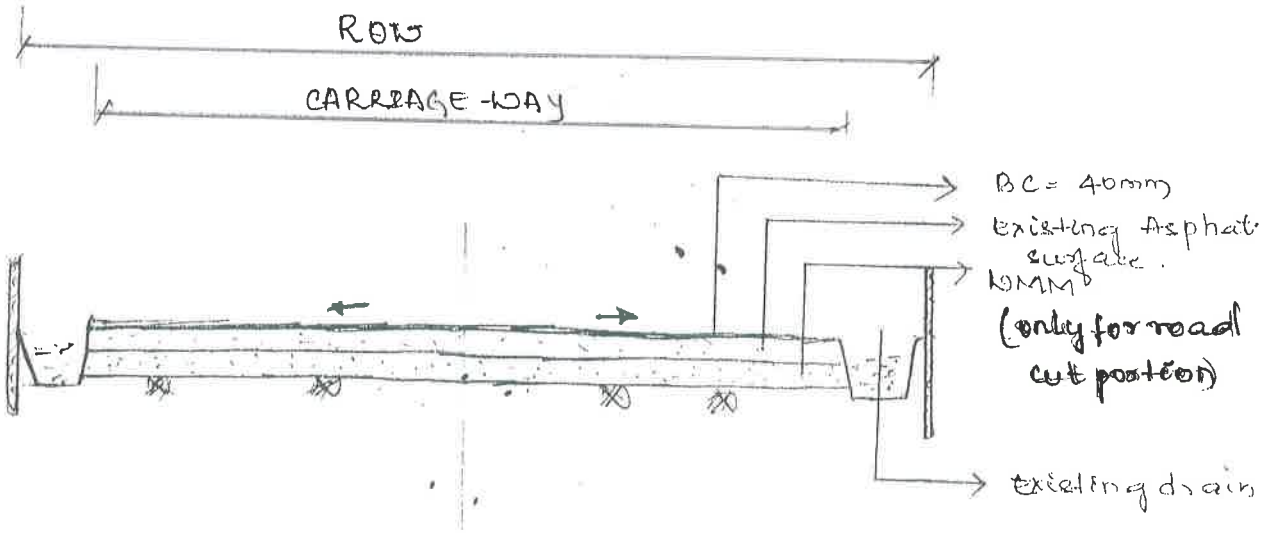
Head of A/c 534 Dt. 12/01/18

CER NO

TA

CE TYNK

Improvement to Roads of 1st to 11th cross Right Side of Jakkur Layout in Ward no. 07



CROSS-SECTION

AE(W)

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092